

Bureau of Air Permits and Regulations

Douglas Watson, Chief and Will Stone, Chief

Bureau of Air

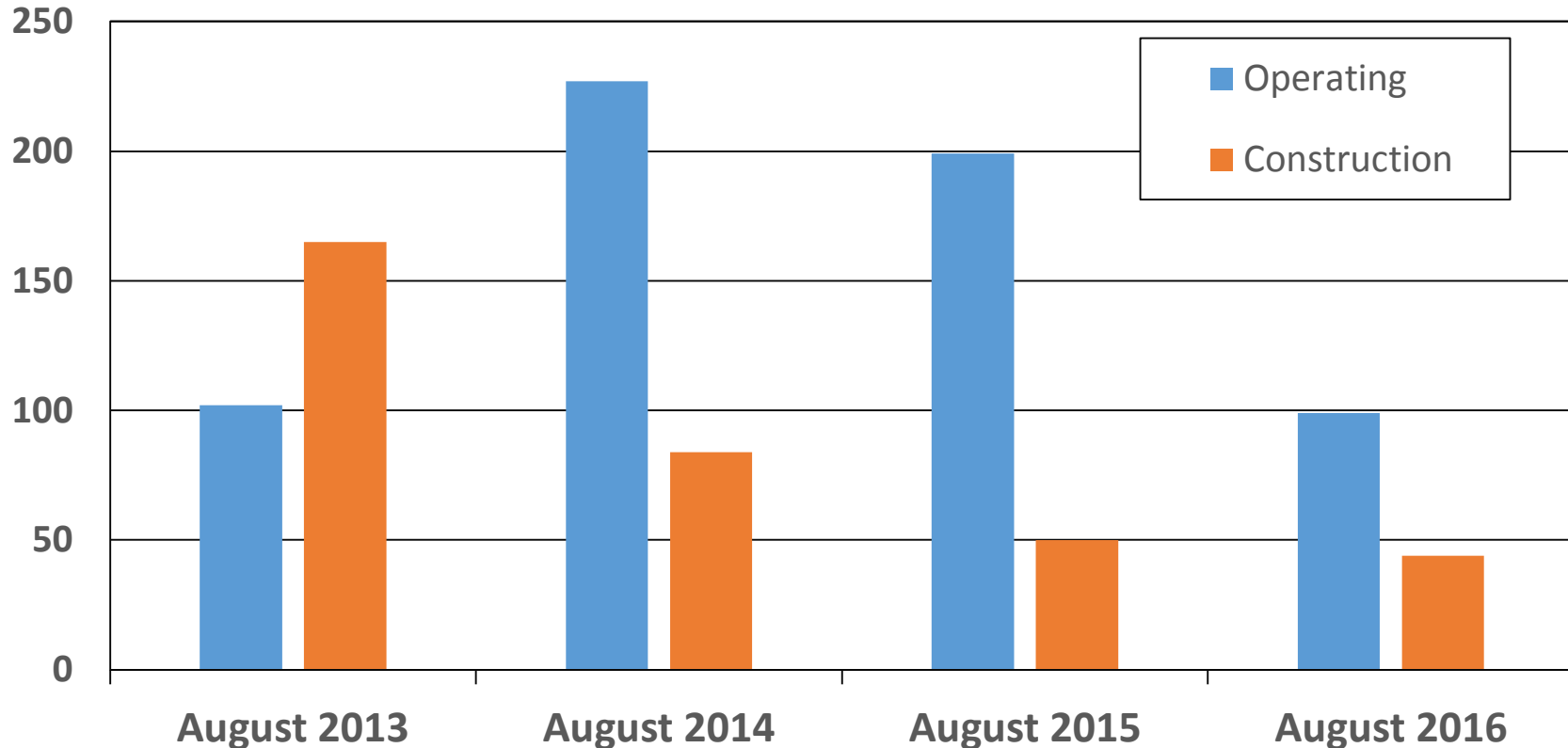
August 2016



Overview

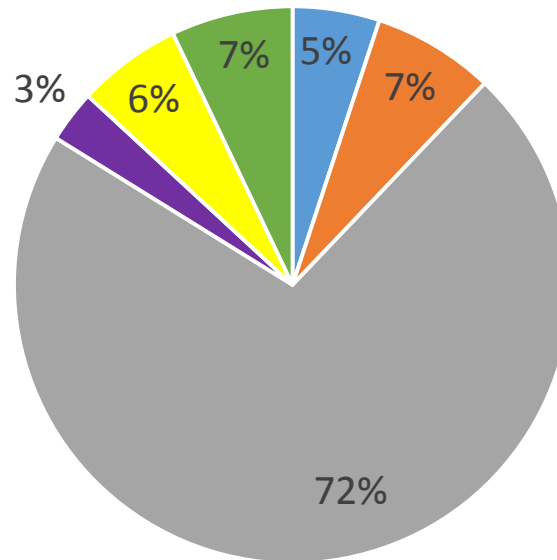
- Operating Permits
- Construction Permits
- Existing Permit Tools
- Changes to Federal Regulations
- Emission Fees
- Proposed Kansas Regulation Changes

Pending Permit Applications August Snapshot



Our Mission: To protect and improve the health and environment of
all Kansans.

Pending Operating Permit Applications By Type



99 TOTAL *

* As of August 4, 2016.

■ Class I Initials

■ Class I Renewals

■ Class II Modifications

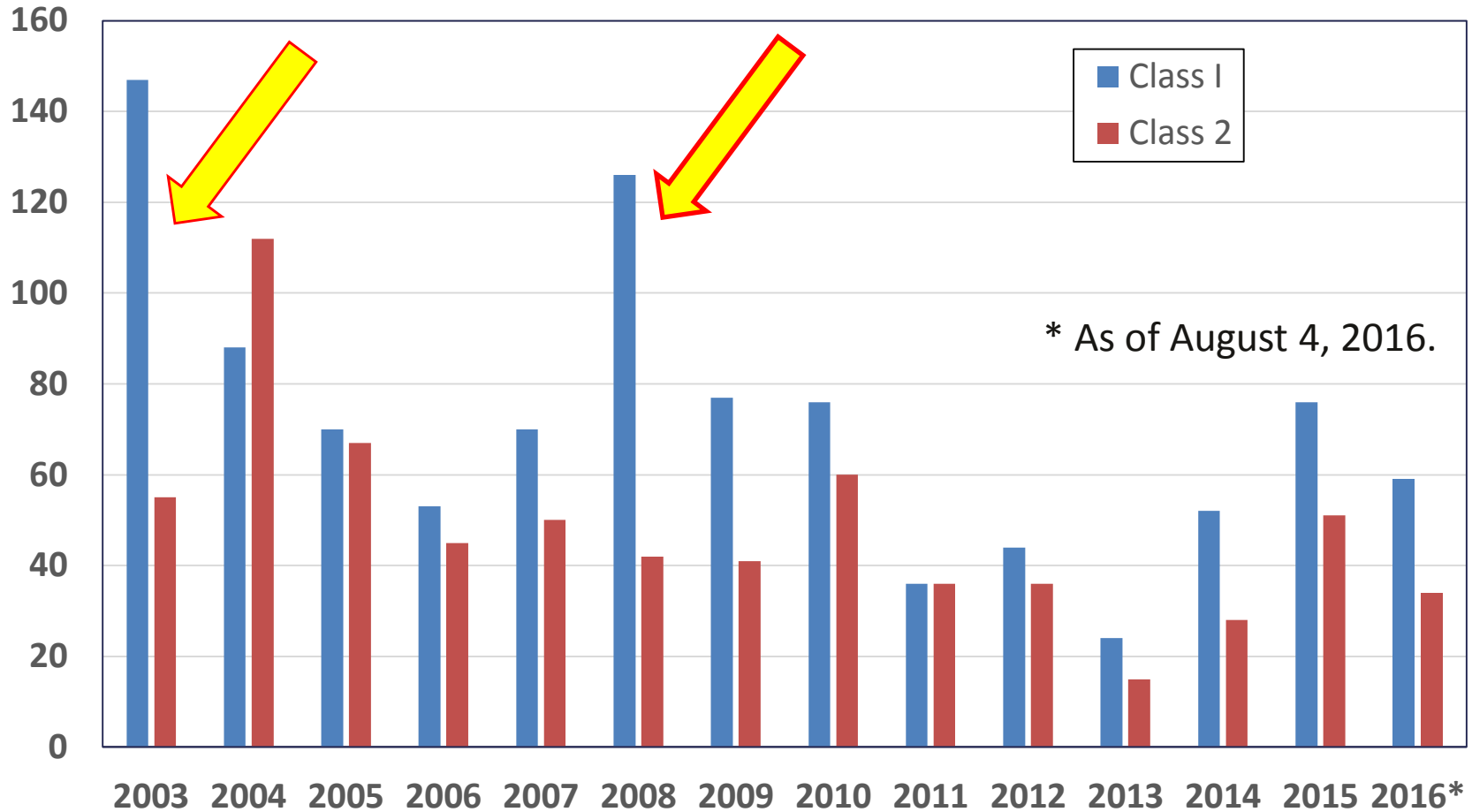
■ Class I Modifications and Re-Openings

■ Class II Initials

■ Other

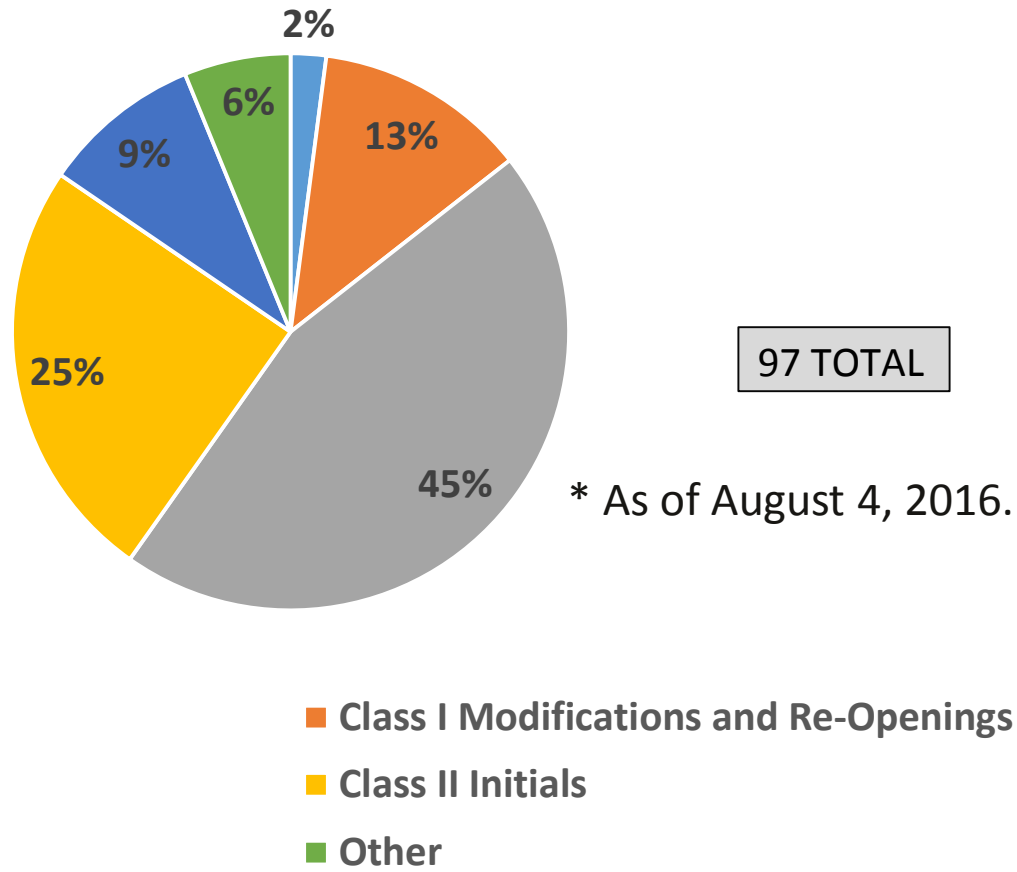
Our Mission: To protect and improve the health and environment of all Kansans.

Kansas Air Operating Permits Issued by Year



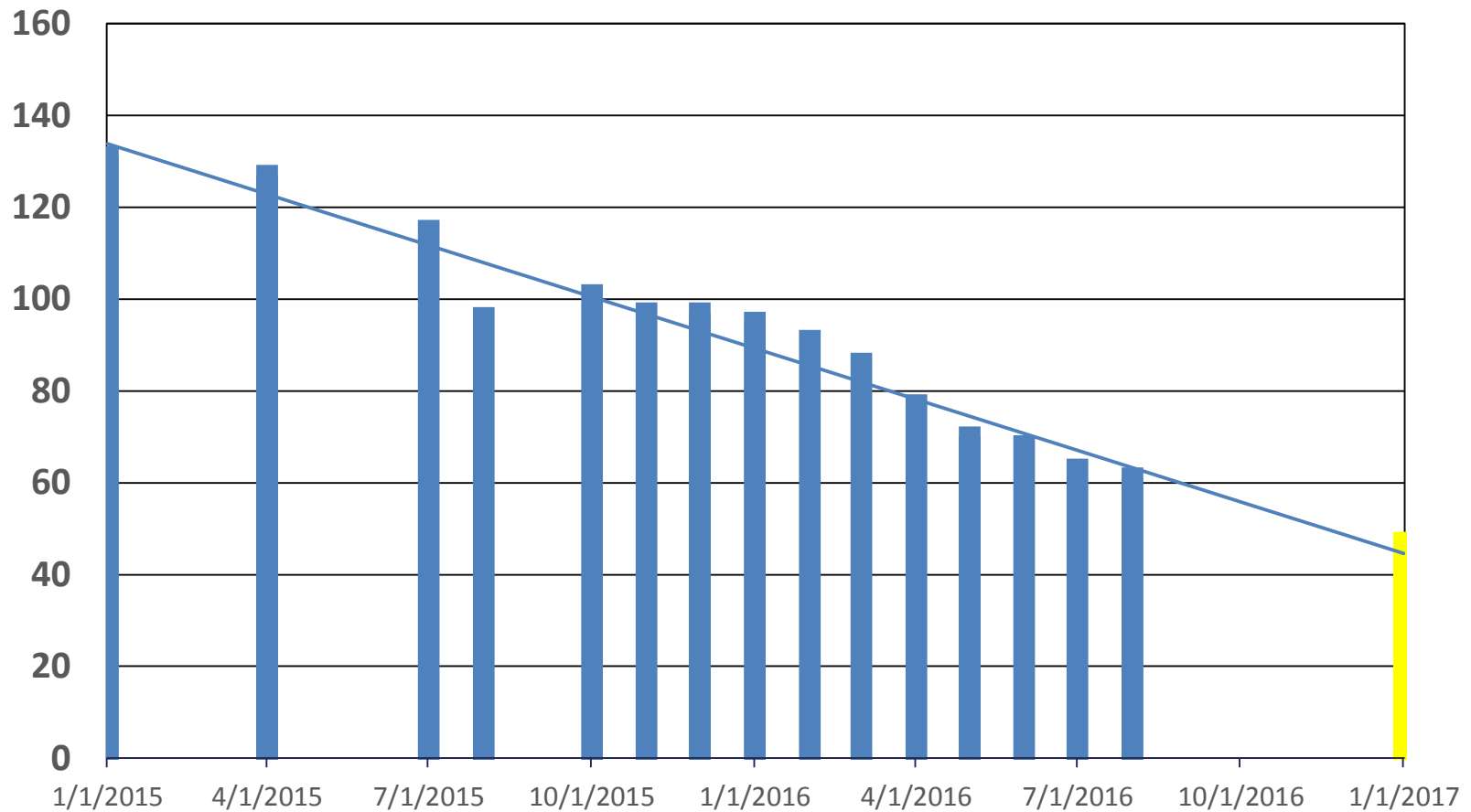
Our Mission: To protect and improve the health and environment of
all Kansans.

Operating Permits Issued 2016*



Our Mission: To protect and improve the health and environment of
all Kansans.

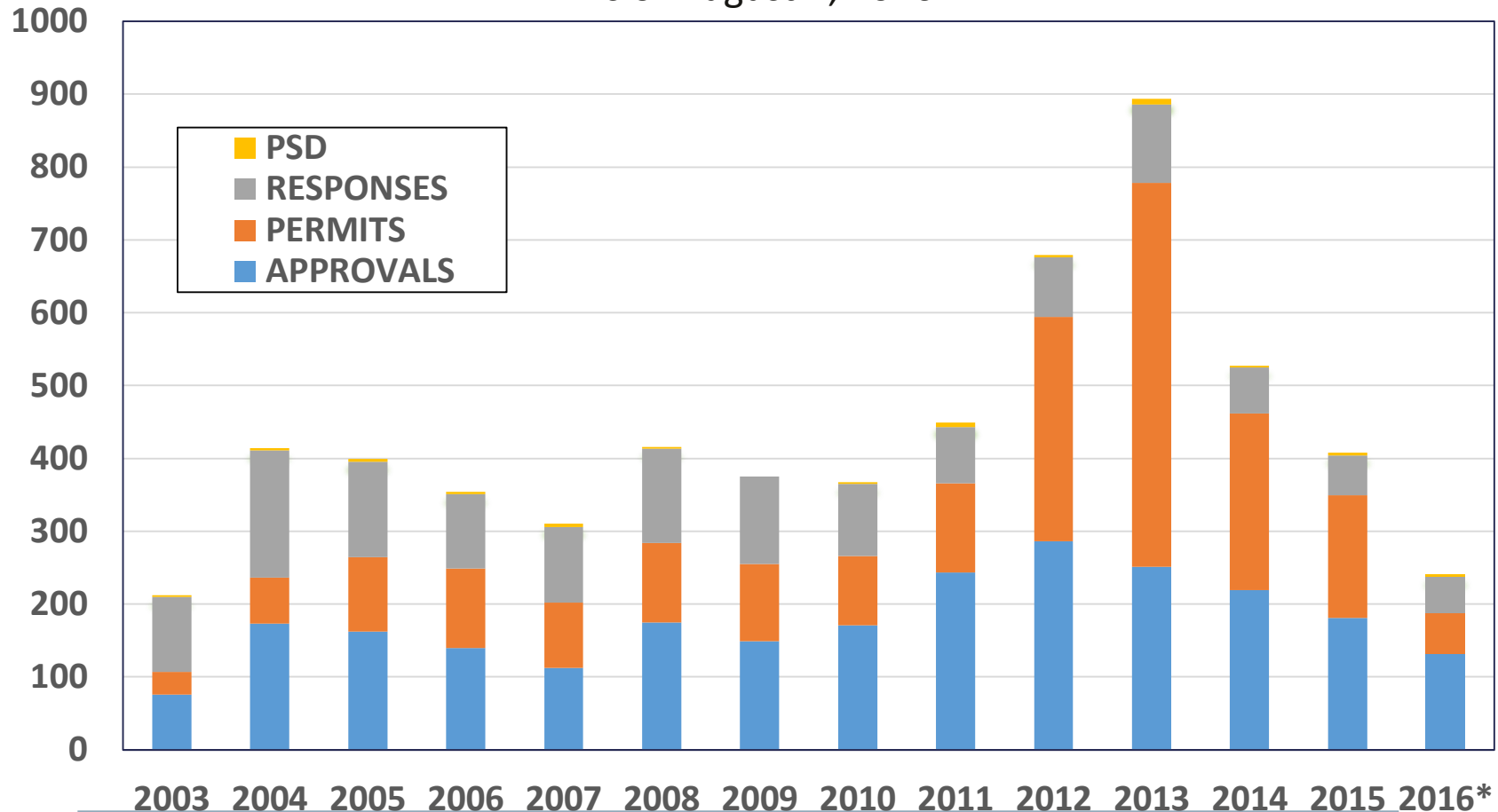
Expired Class I Operating Permits



Our Mission: To protect and improve the health and environment of all Kansans.

Construction Documents by Year and Type

* As of August 4, 2016.



Our Mission: To protect and improve the health and environment of all Kansans.

Expedited Construction/Permit-By-Rule/General Operating

- Currently

- Expedited Construction: Emergency Generators, Oil and Gas, Animal Incinerators, Concrete Batch
- Permit-By-Rule: Hot Mix Asphalt, Organic Solvent, RICE, 50%

- Coming Soon

- Expedited Construction: Portable Rock Crushers, Boilers, Air Curtain Incinerators
- General Operating: Air Curtain Incinerators

Existing Permitting Tools

- Redesigned BOA Website:
 - Forms <http://www.kdheks.gov/air-permit/download.html>
 - FAQs <http://www.kdheks.gov/air-permit/faq.html>
 - Technical Guidance http://www.kdheks.gov/air-permit/tech_guidance.html
- SBEAP: <https://www.sbeap.org/aqrules>
 - PTE calculators
 - PBR tools
 - New Videos for Inspections and Violations

Federal Regulations

- NSPS and EG for MSW Landfills
 - NSPS Subpart XXX
 - EG Subpart Cf
- Changes to 40 CFR Part 51 Appendix W (Modeling)
- Boiler MACT Court Ruling and Vacatur
- Oil and Gas Methane Rule
- RICE NESHAP and NSPS Provisions for Emergency Engines - Court Ruling and Vacatur
- Refinery Sector Rule

New Source Performance Standards (NSPS) and Emission Guidelines (EG) for Municipal Solid Waste (MSW) Landfills

- Clean Air Act: NSPS (**40 CFR Part 60**) review/revise – *every 8 years*
- EG review isn't required – EPA reviews/revises when appropriate
- NSPS and EG for MSW landfills (40 CFR Part 60, **Subpart WWW** and **Subpart Cc**) last updated in **1996**
- Amendments to NSPS proposed in **2002 & 2006** – weren't finalized
- **July 14, 2016** – EPA issued new final NSPS rule and revised EG for MSW landfills (*not published yet*)
- New NSPS rule and revised EG will be published in the Federal Register under new Subparts – **Subpart XXX** and **Subpart Cf**

Our Mission: To protect and improve the health and environment of
all Kansans.

NSPS and EG for MSW Landfills

- **Applicability**
 - NSPS Subpart XXX
 - Constructed, Modified or Reconstructed landfills after *July 17, 2014*
 - EG Subpart Cf
 - Existing landfills that accepted waste after *November 08, 1987*
 - Constructed, Modified, or Reconstructed on or before *July 17, 2014*
- **Compliance**
 - 40 CFR Part 60, Subpart XXX (New NSPS rule for MSW landfills)
 - Final rule issued on *July 14, 2016*
 - Awaiting final official version to be published in the Federal Register (FR)
 - 40 CFR Part 60, Subpart Cf (Revised EG for MSW landfills)
 - Final rule issued on *July 14, 2016*
 - SIP submittal deadline – *9 months* after rule is published in the FR
 - Followed by EPA review and approval – *4 months*; or FIP

Our Mission: To protect and improve the health and environment of all Kansans.

Key Changes to NSPS and EG

1996 Standards:

- Design capacity threshold – **2.5 million metric tons** (megagrams, *Mg*) and **2.5 million cubic meters** of waste or more
- NMOC emission threshold **50 Mg/yr**
- GCCS installation within 30 months of exceedance

New Standards (*July 14, 2016*)

- NMOC emission threshold reduced to **34 Mg/yr**
- Closed landfills – **50 Mg/yr** (*unchanged*)
 - Closed on or before *August 27, 2015*
 - Closed prior to the date 13 months after rule published in the FR
 - Continue GCCS until NMOC < 50 Mg/yr
- Same design capacity threshold (*unchanged*)
- GCCS installation within 30 months (*unchanged*) of exceedance at **new, lower threshold** of **34 Mg/yr**
- GCCS Design Plan update requirements
- Requirements for Capping/Removing GCCS
- Alternative standard during SSM events for GCCS
- Wellhead operational standards
 - No corrective action for exceedances of nitrogen/oxygen levels
 - Routine monthly monitoring and recordkeeping still required
 - Temperature and maintaining negative pressure (*unchanged*)
- SEM of methane – quarterly basis
- Monitor cover penetration, use of GPS for SEM
- Tier 4 demonstration (*optional*)
- Site-specific Monitoring Plan
- LFG Treatment System (definition and clarifications)
- Alternative timeline extension request for corrective action

FR: Federal Register, **GCCS**: Gas Collection and Control System, **LFG**: Landfill gas, **NMOC**: Non-Methane Organic Compounds, **SEM**: Surface Emission Monitoring, **SSM**: Startup, Shutdown, and Malfunction

Our Mission: To protect and improve the health and environment of all Kansans.

Air Quality Dispersion Modeling

- Draft Significant Impact Levels (SILs) guidance from EPA released 8/1/16
 - Comment Period through 9/30/16
 - SIL Levels Recommended
 - EPA goal is to finalize by the end of 2016
- Prevention of Significant Deterioration (PSD) SIL Uses
 - Define extent of modeling
 - Determine whether proposed project causes or contributes to a violation of the National Ambient Air Quality Standards (NAAQS)
 - Determine whether proposed project causes or contributes to a violation of the PSD increments

Dispersion Modeling

Draft EPA SIL Guidance -NAAQS

Recommended SIL Values for Ozone and PM _{2.5} NAAQS	
Criteria Pollutant (NAAQS level)	NAAQS SIL Concentration
Ozone 8-hour (70 ppb)	1.0 ppb
PM _{2.5} 24-hour (35µg/m ³)	1.2 µg/m ³
PM _{2.5} annual (12µg/m ³)	0.2 µg/m ³

Our Mission: To protect and improve the health and environment of all Kansans.

Dispersion Modeling

Draft EPA SIL Guidance - Increment

Recommended SIL Values for PM _{2.5} Increment			
Criteria Pollutant (averaging period)	PSD Increment SIL Concentration		
	Class I	Class II	Class III
PM _{2.5} (24-hour)	0.07 µg/m ³	1.2 µg/m ³	1.2 µg/m ³
PM _{2.5} (annual)	0.04 µg/m ³	0.2 µg/m ³	0.2 µg/m ³

Our Mission: To protect and improve the health and environment of all Kansans.

Dispersion Modeling Coming Soon From EPA

- Model Emissions Rates for Precursors (MERPs) for single source impacts on PM_{2.5} and ozone
 - Draft expected August-September
 - Final later in the fall
- 40 CFR Part 51 Appendix W final rule expected September-October
- EPA Regional, State, and Local Dispersion Modeler's Workshop
 - November 14-18 in New Orleans
 - 2 days for stakeholders
 - Not on the EPA web site yet, but here's where to look <https://www3.epa.gov/ttn/scram/conferenceindex.htm>

Dispersion Modeling

40 CFR Part 51 Appendix W

Proposed Changes

- Guideline on Air Quality Models
- Published July 29, 2015
- 1-hour NO₂ modeling
 - Use ozone limiting method (OLM) and plume volume molar ratio method (PVMRM) regulatory default options (no Region 7 approval required)
 - Justify inputs in protocol
- Criteria and process steps for choosing single source analytical techniques or models to estimate ozone impacts from precursor NO_x and VOC emissions
- Criteria and process steps for choosing single-source analytical techniques or models to assess concentrations of direct and secondarily-formed PM_{2.5}
- Criteria for extent of modeling domain for NAAQS and increment

19

Dispersion Modeling and Ambient Air Quality Analyses

Future PSD permit ambient air quality analyses will need to account for

- Secondary PM_{2.5} formation (significant for NO_x, SO_x)
- Ozone for sources that are major for VOC (not new, but may have new tools)
- Analyses may be qualitative in many cases
- Expect many analyses not to include modeling

Boiler MACT Court Ruling and Vacatur

- MINDY!!

Oil and Gas Methane Rule: NSPS Subpart OOOOa

- June 2016- Final Rule Published in Federal Register
- Subpart OOOOa established new greenhouse gas (GHGs) and volatile organic compound (VOC) standards for the crude oil and natural gas source category.
- Regulation addresses the following emissions sources:
 - Sources not currently regulated under NSPS OOOO (i.e. hydraulically fractured oil well completions, pneumatic pumps, and fugitive emissions)
 - Sources that are currently regulated for VOC but not GHGs (i.e. equipment leaks at natural gas processing plants)
 - Equipment which Subpart OOOO regulates VOC emissions from only a small subset (i.e. pneumatic controllers, reciprocating compressors)

**Our Mission: To protect and improve the health and environment of
all Kansans.**

NSPS 0000a Continued...

- Applies to new, modified, and reconstructed sources after 09/18/2015
- Compliance dates for existing sources are:
 - August 8, 2016- most sources
 - November 30, 2016- Pneumatic Pumps at well sites and processing plants
 - June 3, 2017- Equipment Leaks at well sites and compressor stations
- A Few New Requirements
 - Redefined “custody transfer” to include the transfer of crude oil and natural gas
 - Crude oil production includes the well and extends to the point of custody transfer
 - Requires “reduced emission completion (REC) or green completion” for hydraulically fractured wells (both oil and gas)- with some exceptions
 - LDAR- monitoring of fugitive emissions using OGI device or Method 21 at well sites, compressor stations, and gas plants

Our Mission: To protect and improve the health and environment of all Kansans.

NSPS OOOO ^a Affected Facility	Production (Well Site)	Gathering	Gas Processing	Transmission & Storage
Hydraulically Fractured Wells	X			
Centrifugal Compressors		X	X	X
Reciprocating Compressors		X	X	X
Pneumatic Controller	X	X	X	X
Pneumatic Pumps	X		X	
Storage Vessels	X	X	X	X
Equipment Leaks	X	X	X	X
Sweetening Units			X	

Consultants 2016

Georgette Reeves, Trinity

*Georgette Reeves, Trinity Consultants
2016*

**Our Mission: To protect and improve the health and environment of
all Kansans.**

Oil and Gas Methane Rule: Source Determination Rule and Information Collection Request

- Source Determination Rule
 - Defines “Adjacent”- emission sources located on separate sites within $\frac{1}{4}$ mile of each other can be aggregated if they share common equipment (i.e. storage tanks)
 - Effective Date- August 2, 2016
- Information Collection Request
 - Comment period ended August 2, 2016
 - Anticipated date of section 114 letters- October 30, 2016
 - Two Part ICR
 - Part 1- Operator Survey (expecting 22,500 respondents)
 - Part 2- Detailed Facility Survey (expecting 3,385 respondents)
- For more information:
<https://www3.epa.gov/airquality/oilandgas/methane.html>

**Our Mission: To protect and improve the health and environment of
all Kansans.**

RICE NESHAP and NSPS Provisions for Emergency Engines - Court Ruling and Vacatur

- <https://www3.epa.gov/ttn/atw/icengines/docs/RICEVacaturGuidance041516.pdf>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

April 15, 2016

MEMORANDUM

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

SUBJECT: Guidance on Vacatur of RICE NESHAP and NSPS Provisions for Emergency Engines

FROM: Peter Tsirigotis
Director, Sector Policies and Programs Division
Office of Air Quality Planning and Standards

TO: EPA Regional Air Enforcement Managers
EPA Regional Air Directors

The U.S. Environmental Protection Agency is issuing this guidance to explain how the EPA intends to implement certain regulatory requirements after the U.S. Court of Appeals for the District of Columbia Circuit issues the mandate effectuating the vacatur in *Delaware v. EPA*.¹ The statutory provisions and EPA regulations, as impacted by the impending issuance by the court of its mandate and described in this document, are themselves legally binding requirements. This document does not substitute for those provisions or regulations or modify them, nor is it a regulation itself. As such, this document does not impose legally binding requirements on the EPA, states, or the regulated community and may not apply to a particular situation based upon the circumstances. In appropriate circumstances, individual EPA decision makers may adopt approaches that differ from this guidance.

**Our Mission: To protect and improve the health and environment of
all Kansans.**

Fees And Regulations



Our Mission: To protect and improve the health and environment of all Kansans.

Current Fee Overview

- **Construction Permit and Approval Fees**

- Fees based on capital cost of project
- Fees stagnant for 20 years
- Some funding may be used as match

- **Operating Permit and Renewal Fees**

- Class I sources renew every 5 years; Class II's do not renew
- Fees stagnant for 20 years
- Funding not usable as match

- **Emission Fees**

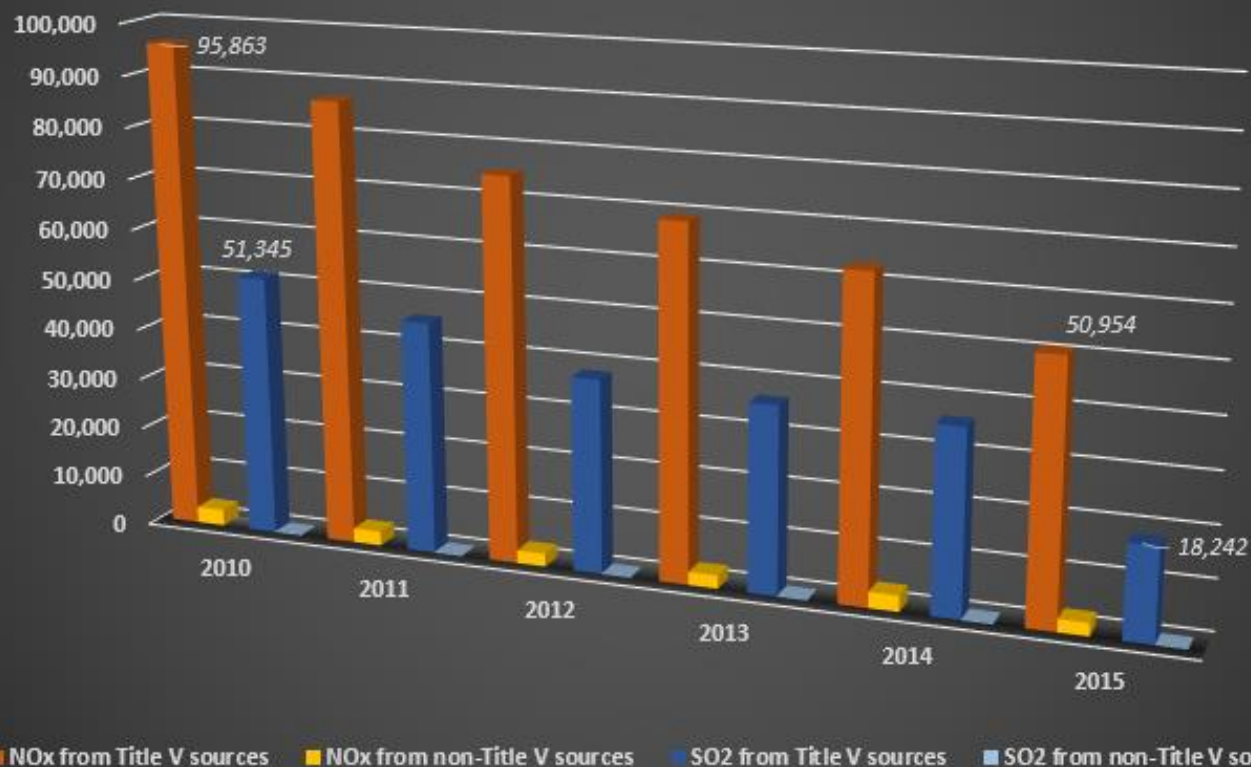
- Currently \$37 per ton with 4,000 ton cap for Class I (since 2010)
- Continual decline in emissions
- Funding issue with match
- Below EPA presumptive and below neighboring states

Our Mission: To protect and improve the health and environment of all Kansans.

Fee Issues

- Cyclic nature of revenue
- Match and Maintenance Of Effort for Federal 105 Grant
- Revenue decline from emission reductions and State General Fund
- Equity of fees relative to work performed
- Sufficient resources to maintain program

Kansas emissions of NO_x and SO₂ (in tons) for years 2010-2015, by fee-paying status of sources



	2010	2011	2012	2013	2014	2015
NOx from Title V sources	95,863	86,841	75,113	69,228	62,923	50,954
NOx from non-Title V sources	3,205	2,838	2,542	2,597	3,163	2,558
SO2 from Title V sources	51,345	45,640	38,024	36,568	36,233	18,242
SO2 from non-Title V sources	148	143	127	139	138	121

Our Mission: To protect and improve the health and environment of all Kansans.

Air Quality Fee Fund Trend

- Assumptions for projection 2017 – 2021
 - \$50,000 per year in fines
 - Vacancies filled
 - No expansion in personnel
 - Minimal growth in operating costs
 - \$300,000 in construction permit fees starting in 2018
 - Maintain \$37/ton emission fee
- Currently have strong balance in fee fund
- Balance drops quickly in future years

Air Quality Fee Fund Balance from 2012 to 2021 with Emission Fee of \$37/ton



Path Forward

- **Phase I** – Construction Permit and Approval Applicability and Fees
 - K.A.R. 28-19- 300 & K.A.R. 28-19-304
 - Through External Review
 - Public Notice and 60 day comment period late Summer 2016
 - Final and effective by late Fall 2016
- **Phase II** – Class I Operating Permit and Emission Fees
 - K.A.R. 28-19-516 & K.A.R. 28-19-517 [Revoke K.A.R. 28-19-202]
 - Propose in early 2017
 - Finalize Spring 2017
 - Class I Permit Application & Renewal Fees effective immediately
 - Annual Emission Fees effective calendar year 2018 for 2017 emissions

Our Mission: To protect and improve the health and environment of all Kansans.

Path Forward

- **Phase III** – Class II Operating Permit and Emission Fees
 - K.A.R. 28-19-545 & K.A.R. 28-19-546
 - Propose in Spring 2017
 - Finalize Fall 2017
 - Class II Permit Application Fees effective immediately
 - Annual Fee effective calendar year 2018 for 2017 emissions

Our Mission: To protect and improve the health and environment of
all Kansans.

K.A.R. 28-19-300

Applicability Amendments

- **Construction Permits**

- Eliminate Acid Rain “affected source” language
- Clarify major source of HAPs
 - New construction or reconstruction major source of HAPS
 - Modify area source to become major source
- Add 10 tons per year direct PM_{2.5} emissions to significant thresholds
- Add request for Federally Enforceable Permit Condition 302(b)

- **Construction Approvals**

- Clarify and define NSPS, MACT, NESHAP construction, reconstruction, modification; not just ANY change.
 - Exempt MACT Subparts: M, 4Z, and 6C
- Correct Operation Restriction under K.A.R. 28-19-302(c)

Our Mission: To protect and improve the health and environment of all Kansans.

K.A.R. 28-19-304

Proposed Amendments

- **Construction Fee Amendments**

- Approvals \$750
- Permits \$4,000; \$2,000; \$1,000
 - Based on complexity of source type
- PSD and non-attainment NSR Permits
 - New permit – \$10,000
 - Modification with BACT or emissions changes – \$10,000; Otherwise \$3000
 - Refined modeling – additional \$8,000
 - Application Revision – additional \$5,000 per
 - Modeling Revision – additional \$4,000

- **Fiscal Rational**

- Revenue from \$180,000 to ~\$300,000
- Revenue may be used as match

Our Mission: To protect and improve the health and environment of all Kansans.

K.A.R. 28-19-516

Proposed Amendments

- **Class I Operating Permit Fee Amendments**

- Initial and Renewal Fee from \$1,000 to \$3,000;
- Significant Modification Fee from \$500 to \$1,500
- General Permit Fee
 - K.A.R. 28-19-401 from \$750 to \$2,250
 - K.A.R. 28-19-403 from \$250 to \$750
- Eliminate exemption for emission fee payers

- **Fiscal Rational**

- Revenue change - \$17,794 to \$118,000
- Not match eligible
- Revenue variable from year to year
- Fees stagnant for 20 years

Our Mission: To protect and improve the health and environment of all Kansans.

K.A.R. 28-19-517

Proposed Amendments

- **Annual Emission Fee Amendments**
 - Incorporate emission fee language for Class I sources
 - Revoke K.A.R. 28-19-202
 - Increase from current \$37 to \$53 per ton
 - Establish a minimum base fee of \$1,000
 - Modify overpayment/refund from \$37 to \$200
 - Effective calendar year 2018 for 2017 emissions
- **Fiscal Rational**
 - \$3.1M collected for 2015 emissions in SFY2016
 - SFY2018 projected revenue increase from \$2.90M to \$4.15M

Our Mission: To protect and improve the health and environment of
all Kansans.

K.A.R. 28-19-545

Proposed Amendments

- **Class II Operating Permit Fee Amendments**
 - Initial Fee from \$200 to \$500
 - Modification Fee from \$100 to \$250
 - General Petition Fee from \$750 to \$1,500
 - General Application Fee from \$50 to \$100
 - General Permit-by-rule Fee from \$50 to \$100
- **Fiscal Rational**
 - Partially match eligible
 - Revenue variable from year to year
 - Fees stagnant for 20 years

Our Mission: To protect and improve the health and environment of
all Kansans.

K.A.R. 28-19-546

Proposed Amendments

- **Fee Amendments**

- Establish \$500 Annual Fee for Class II sources operating and emitting emissions in Kansas
- Change Inventory due date to March 1

- **Fiscal Rational**

- Revenue from \$0 to ~\$200,000
- Class II source numbers relatively stable
- Justified by significant workload
 - Inventory review
 - Compliance assistance
 - Permitting
 - Monitoring network
- May be used for match
- Most states have Class II fees

Our Mission: To protect and improve the health and environment of all Kansans.

Final thoughts –

- Several of the options address long-standing equity issues
- Revenue for some options will be partially offset by increased collection workload
- Match is more important when 103 grant dollars merge with 105 grant
- Timing to implement different options varies considerably